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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,070	03/11/2004	Stefan G. Hild	CH920020049US1	5669
7590	08/26/2005		EXAMINER	
LOUIS P. HERZBERG IBM Corporation P.O. Box 218 Yorktown Heights, NY 10598			WANG, JIN CHENG	
			ART UNIT	PAPER NUMBER
			2672	

DATE MAILED: 08/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/798,070	Applicant(s) HILD ET AL.	
	Examiner Jin-Cheng Wang	Art Unit 2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by S. Ma, et al., “EventMiner: An integrated mining tool for Scalable Analysis of Event Data”, May 21, 2001, www.research.ibm.com.

Claim 1:

Ma teaches a method of monitoring events in a computer network, the method comprising:

Said computer network triggering said events, each event being provided with attribute values allocated to a given set of attributes (See Page 1, second paragraph, for attribute values, see the last paragraph of Page 6 and the first and second paragraphs of Page 8 and the real data set collected from a production computer network containing thousands of managed nodes including routers, hubs and servers are described in the last paragraph of page 3 and identifying unknown event patterns that can be used for real-time monitoring is described in the second paragraph of page 3);

Providing an event display with a cross plot having x and y coordinate axes, the x-axis presenting a time period and the y-axis present an attribute value range (e.g., Figs. 2, 4, 6, 7 and the third paragraph of Page 8 describes a scatter plot or cross plot having an y-axis representing around 160 hosts of a communication network and the x axis has been described in the figures as

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well as the first paragraph of page 6; for attribute value range, see these figures as well as the description in the second paragraph of Page 8);

Determining a primary attribute of the events selected from the given set of attributes to be presented with its attribute values on the y-axis of the cross plot (e.g., attributes including the categorical attributes or temporal attributes such as the host names and the primary attribute values are displayed in Figs. 2, 4, 6 and 7 and multiple attributes are described in the last paragraph of Page 11),

Allocating a first display label (e.g., Pattern 1, Pattern 2, Pattern 3 and Pattern 4 are marked in the scatter plot or the cross plot of Fig. 7) to the events (e.g., alarms in Page 10) indicating the attribute values of the primary attribute (key attribute values are described in the second paragraph of page 3 and other attribute values are also described there), providing a pattern algorithm (the pattern algorithm is described in Fig. 7 as well as the mining algorithm as described in the last paragraph of page 12 or the EventMiner) to detect whether an arrived event (arrived event are the selected event objects or the selected data objects in a specific time range related to the events progressively loaded from a database or the mining alarm logs in a real time system; see first paragraph of page 13 and the last paragraph of page 10 and a new query that retrieves the relevant data objects for more analysis in which a new query is restricted to a range constraint for a numerical attribute; see the last paragraph of page 10) is part of the given pattern (is part of the part of the given pattern such as the Pattern 1 or the Pattern 2) on the basis of a comparison of the attributes allocated to the given pattern and of the attributes assigned to the arrived event (coloring events by the coloring and filtering algorithm or the data mining algorithm and comparing the difference or similarity in terms of patterns indicated by colors; see

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page 13), providing a mapping algorithm to map any attribute value of an attribute selected from the given set of attributes onto the y-axis of the cross plot (see the last paragraph of Page 11),

Allocating a second display label (e.g., Pattern 2) to the events indicating the attribute values of the attributes being uncovered as part of the given pattern, plotting all the events arrived within the time period and including an attribute value allocated to the primary attribute into the cross plot with the first display label indicating the primary attribute, the position of the first display label of each event in the cross plot being determined on the basis of the attribute value of the primary attribute of the event and its arrival time (see Figs. 2, 4, 6, and 7 and the related paragraphs mentioned above in “allocating a first display label”), and

Plotting the all events arrived within the time period (Figs. 2, 4, 6, and 7 plot the all events within a specific time range) and being detected by means of the pattern algorithm (by the event miner algorithm) as part of the given pattern into the cross plot with the second display label (e.g., Pattern 2 or the Green Spike in Fig. 10), the position of the second display label of each event in the cross plot being determined by the mapping algorithm on the basis of the attribute value of the attribute of the event (see Fig. 10) on the basis of the attribute value of the attribute of the event being uncovered (uncovered for example in the alarm log and uncovered by the mining algorithm) as part of the given pattern and its arrival time (all the selected events are in a specific time range as plotted in Figs. 2, 4, 6, 7 and 10).

Re Claims 2-3:

Ma further discloses selecting the new events within the specified time period and plotting the new events within the shifted time period into the cross plot (See Figs. 6, 7, 9 and 10 in which events in the two time periods are drawn and the spikes are identified and the newly

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selected events are redrawn as determined by the data mining algorithm for the time period during which the new events are retrieved).

Re Claims 4-5:

Ma further discloses the third display label and the fourth display label indicating the new patterns (See the three colored spikes in Fig. 6 and the four patterns in Fig. 7).

Re Claim 6:

Ma further discloses the operator selects the events to be plotted and displaying textual and coloring information associated with the selected events on the event display (Page 4 and Figs. 6, 7, 9-10).

Re Claim 7:

Ma further discloses a pattern algorithm such as the data mining algorithm suitable to perform multi-attribute pattern recognition (Figs. 6, 7, 9-10).

Re Claim 8:

Ma further discloses using color such as Red and Green to color the pattern Spikes and Pattern 1, Pattern 2, Pattern 3, Pattern 4 for specific mark layouts (Figs. 6, 7, 9-10).

Re Claim 9:

Ma further discloses all events being uncovered as part of the pattern being clustered by the display label such as Red Spikes, Green Spikes (Figs. 6, 7 and 9-10).

Re Claim 10:

Ma further discloses a data mining algorithm and GUI (Page 14).

Re Claim 11:

Ma further discloses the program code being stored on data carrier (see page 5).

Re Claim 12:

Ma further discloses an event visualization device for monitoring events in a computer network (Page 3).

Re Claims 13-15:

Ma further discloses an implementation of the Event Miner algorithm on the computer (Page 4-5).

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (571) 272-7665. The examiner can normally be reached on 8:00 - 6:30 (Mon-Thu).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on (571) 272-7664. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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